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ABSTRACT

The effects of telegraphic prose upon the comprehension of written and auditorily presented messages were tested. Two separate experiments were conducted. Subjects for the first experiment were 60 undergraduates enrolled in a remedial reading program; subjects for experiment 2 were 100 undergraduates enrolled in an introductory educational psychology course. In both experiments subjects were randomly assigned to four treatment groups: visual-traditional, visual-telegraphic, auditory-traditional, and auditory-telegraphic. The groups read or listened to a fictional story in either the traditional prose or the telegraphic form and then answered 20 questions on the passage. Four dependent variables were analyzed: total number correct on the test, reading rate, reading time, and S-scores (number of nested items correct minus the number of disjunctive items correct). It was found in both experiments that the amount of time spent reading the telegraphic versions was less than one-half the time spent reading the traditional passage; but there was approximately 12 percent less comprehension demonstrated by the telegraphic groups versus the traditional groups. No interaction was found between the visual-auditory variable and the traditional-telegraphic variable. (AW)

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COMPREHENSION OF TELEGRAPHIC PROSE

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The purpose of this study was to assess the effects of telegraphic prose upon the comprehension of oral and written messages. Telegraphic prose is based upon the assumption that written and spoken language contains many words and word sequences which are unnecessary for the efficient communication of information. A total of 160 Ss were tested in two experiments in which the Ss were assigned to four treatment groups: Visual-Traditional, Visual-Telegraphic, Auditory-Traditional, and Auditory-Telegraphic. Although there was a significant difference in comprehension between telegraphic and traditional messages (12% less comprehension for telegraphic messages), 60% less time was spent reading telegraphic passages.

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Objectives

The purpose of this study was to determine the effects of telegraphic prose upon the comprehension of written and auditorily presented messages. The feasibility of developing telegraphic prose is based on two assumptions. The first assumption is that written and spoken language contains many words and word sequences which are unnecessary for the comprehension of a message. That is, in the usual message, there are words, phrases, and sometimes even sentences which do not aid in comprehension of the message.

The second assumption is that so-called "correct" writing styles have evolved quite independently of the psychological factors invclved in learning from written or spoken language. The concept of a well-formed sentence or paragraph may not be a necessary condition for the comprehension of a written message. In fact, when persons find it necessary to convey messages in abbreviated form for economy reasons (e.g., sending telegrams), the rules governing the construction of sentences and paragraphs are frequently violated. Yet, these telegraphic messages are usually effective in communicating the essential information to the receiver of the message.

Martin and Alonso (1967) reported the results of a two-year U.S.O.E. grant designed to examine the ability of blind children to comprehend braille prose material presented in a telegraphic style. In general, the results were interpreted as supporting the feasibility of telegraphic materials. The learning and retention of the kernel information in telegraphic materials was comparable to the learning and retention of the same information presented in traditional style. In addition, the Ss reading the telegraphic prose required significally less total reading time than Ss reading the traditional prose. However, there was a 35-40 percent reduction in the reading rates among Ss reading the telegraphic prose. Two possible factors may have accounted for this reduction. The first may be that Ss selected reading speeds which insured comfortable rates of information input, and they did not voluntarily exceed these rates. A second possible interpretation may involve a familiarity factor. The unique style of the telegraphic materials may have caused a reduction in reading speed.

This study was designed to partially replicate the Martin and Alonso (1967) experiment with a non-visually handicapped population and to compare two modes of material presentation. Auditorily presented messages required the Ss to listen to a constant input rate while read messages permitted the Ss to make adjustments in input rates of traditional and telegraphic prose.

Method

The materials and procedures were the same in both experiments. Two separate experiments were conducted. However, the Ss in Experiment I were 60 students enrolled in a remedial reading program at Texas A&M University. While the Ss in Experiment II were 100 undergraduate students enrolled in an introductory Educational Psychology course. The Ss in both experiments were randomly divided into four treatment groups; visual traditional (V-Trad) visual telegraphic (V-Tel), auditory traditional (A-Trad) and auditory telegraphic (A-Tel).

A fictional story concerning two warring African countries was written so that the central ideas were operationally defined in terms of basic set relations. The relationships in the stories were expressed as either disjunctive or nested. This type of passage structure made it possible to assess comprehension by means of a set relations test in which the S was required to recall whether a specific relationship was disjunctive or nested. A total of 20 such questions were developed. The traditional

passage (Trad) contained 1620 words while the telegraphic (Tel) passage contained 455 words. The following are excerpts from the two versions.

Traditional	Telegraphic
In the year 1800 on the continent of Africa, two unfriendly nations existed, the nation of Mambo and the nation of Yam. The Nile River separated these two nations.	In Africa, in 1800, the Nile River separated two unfriendly nations, Mambo and Yam.

Four dependent variables were analyzed: total number correct on the set-relations test, reading rate, reading time, and S-scores. S-scores were defined as the number of nested items correct minus the number of disjunctive items correct.

The auditory versions of the passage were tape recorded at a 120 word per minute rate.

Results and Conclusions

Experiment I

The mean number of correct responses for the V-Trad and V-Tel groups were 15.53 and 13.27, respectively. For the A-Trad and A-Tel groups the means were 15.13 and 14.40. The 2x2 analysis of variance yielded an F value of 4.57 ($df=1/56$, $p<.05$) for the Telegraphic vs. Traditional independent variable. None of the other comparisons approached significance at the .05 level. The V-Trad group had a mean reading rate of 202.96 wpm compared to a 190.43 wpm for the V-Tel group. A Mann-Whitney U test was used to compare the wpm rate for these two groups and yielded a U value which was significant at the .05 level. No significant differences were obtained in any of the analyses of the S-scores.

Experiment II

The mean number of correct responses for the V-Trad and V-Tel groups were 15.96 and 14.56, respectively. For the A-Trad and A-Tel groups the means were 15.20 and 13.96. In the 2x2 analysis of variance, the only significant difference was obtained between the Traditional vs. Telegraphic independent variable ($F=10.05$, $df=1/96$, $p<.05$). The V-Trad group had a mean reading rate of 212.78 compared to a 133.97 wpm rate for the V-Tel group which was significant at the .05 level. Again, none of the S-score analyses were significant.

In both experiments, the amount of time spent reading the telegraphic version was less than one-half the time spent reading the traditional passages. There was approximately 12% less comprehension demonstrated among Ss reading or listening to telegraphic versions versus traditional prose selections. Thus, these results suggest that telegraphic prose selections permit more efficient processing of information than traditional selections.

Moreover, since there was no interaction between the Visual-Auditory independent variable and the Traditional-Telegraphic independent variable, there was no differential decrement in comprehension in the A-Tel condition. This may be due to the relatively slow wpm rate at which the messages were recorded (120 wpm). However, the results do indicate that reading rates are significantly longer for informationally compact messages than for more traditionally written prose selections.

References

Martin, C. J. and Alonso, L., Comprehension of Full Length and Telegraphic Materials Among Blind Children. Educational Research Series, Michigan State University, 1967, 42, 1-53.